Remarks

I. Introduction

This is in response to the Office Action dated October 5, 2007.

Claims 16-21 and 23-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,356,546 (Beshai). Claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over Beshai in view of U.S. Patent No. 5,444,693 (Arslan).

Applicants traverse the rejections. Claims 1-15 and 26-29 were canceled in a previous Amendment. Claims 16-25 are pending.

II. Rejections under 35 U.S.C. §103

In order to "establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art." In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). See also MPEP § 2143.03. The cited references do not disclose all of the limitations claimed in claims 16-21 and 23-25. Therefore, Applicants request the withdrawal of the rejection under 35 U.S.C. §103(a).

Claim 16 claims, in part:

> determining virtual circuit information for each structure group in said network.

The Office Action states that Beshai discloses this limitation in Fig. 10, elements A-E and col. 19, lines 18-40. Fig. 10 shows an example of a five-module network. Col. 19, lines 18-40 of Beshai discusses ingress and egress ports of each module as well as the links between the modules. Beshai does not, however, disclose "determining virtual circuit information for each structure group in a network," as claimed in independent claim 16. Virtual circuit information can include "information for each structure regarding whether a path using a common channel is available th[r]ough the structure." (Applicants'

Specification, page 4, lines 19-20). Beshai does not disclose determining virtual circuit information for each structure group in a network. As a result, independent claim 16 is allowable over Beshai.

Independent claim 16 also claims, in part:

> determining a path through said network using said virtual circuit information, wherein the virtual circuit information includes the number of paths using a common channel through said structure group between any pair of nodes, and wherein a slot-edge matrix is maintained for each data structure, and wherein the availability of a channel is determined based on said slot-edge matrix.

The Office Action states that this limitation is found in Beshai in element 85 of Fig. 7, col. 15, lines 37-61, and col. 16, lines 39-65. These sections of Beshai do not disclose the above limitation. For example, col. 16, lines 39-65 disclose using a route selection process to determine a connection between two nodes. Further, col. 15, lines 37-61 state a module control element using "least cost routing tables" to select a route for each connection.

None of these sections of Beshai, however, disclose the availability of a channel being determined based on a slot-edge matrix.

Applicants' Specification states, on page 10, lines 2 – 9:

> The slot-edge matrix in FIG 4 contains edge (or physical link) usage information regarding slots that are currently used or reserved for a given structure. This information may be used to determine the spare circuit value for the virtual links in that structure. ... In one embodiment, a slot-edge matrix is maintained for each structure for various time periods. In a further embodiment, where a signal in a structure uses more than one slot, a channel may comprise a group of slots in the slot-edge matrix.

Thus, a slot-edge matrix contains edge usage information regarding slots that are currently used or reserved for a given structure. Beshai's least cost routing tables are not the same as a slot-edge matrix, as claimed in independent claim 16, because Beshai's least cost routing tables do not contain edge usage information regarding slots that are currently used or reserved for a given

structure. As a result, Beshai does not disclose this limitation of independent claim 16.

Therefore, Applicants respectfully submit that claim 16 is allowable over the cited reference. The remaining claims are dependent upon an allowable independent claim and are therefore also allowable. In addition, the dependent claims add additional patentable subject matter and are also allowable for the reasons discussed below.

Dependent claim 17 claims:

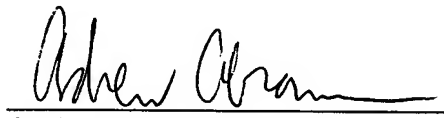
> said request also includes a time period requested, wherein a slot-edge matrix is maintained for various requestable time periods and wherein the availability of a channel is determined based on the slot-edge matrix for the time frame requested.

The Office Action states that Beshai does not explicitly disclose the claimed slot-edge matrix being maintained for each data structure for requestable time periods, the availability of a channel being determined based on the slot-edge matrix. The Office Action states that it "would have been obvious to modify Beshai's connection tables to be maintained for time frame requested." Applicants respectfully disagree and submit that it is not obvious to maintain a slot-edge matrix for various requestable time periods and wherein the availability of a channel is determined based on the slot-edge matrix for the time frame requested, as claimed in dependent claim 17. If the Examiner persists in this rejection, Applicants respectfully submit that the Examiner cite one or more references to show this limitation.

V. Conclusion

For the reasons discussed above, all pending claims are allowable over the cited art. Reconsideration and allowance of all claims is respectfully requested.

Respectfully submitted,



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